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EXAMINER
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ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply ·

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

Claim Status

Claims 1-15 are pending. Claims 1-15 are rejected as detailed below.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the data structure as claimed requires a pointer to a previous child node and a pointer to a next child node for each and every child node in the order or the feature(s) must be canceled from the claim(s). Particularly, child node 54-0 in Figure 2 does not have a pointer to a previous child node. Furthermore, child node 54-N in Figure 2 does not have a pointer to a next child node.

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Objections

Claim 3 and 5 are objected to because of the following informalities:

Claim 3 recites "a first pointer to one the children nodes." It appears the limitation

should read "as first pointer to one of the children nodes."

Claim 5 recites "The method of claim 5." Claim 5 cannot refer to itself. Appropriate

correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention lacks

patentable utility.

The claimed data structure is not drawn to a practical application which has a useful

result because the data structure is not interrelated with software components and hardware

components of a computer system to produce an output and thus no (emphasis added) result is

obtained and thus the consideration of usefulness is moot. Even if the data structure were

embodied in a computer readable medium no result would be obtained because the purpose of

the data structure cannot be ascertained. The lack of functionality in order to produce a useful

result implies that the claimed static data structure does not represent a practical application

possessing utility and thus the claimed invention is an abstract idea which is nonstatutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the enablement requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to enable one skilled in the art to which it pertains, or with

which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "each child node comprises a second pointer to a next child node in the

order and a third pointer to a previous child node in the order." The specification does not

include a clear and concise description of the manner and process of creating a data structure

which complies with above limitation such that a skilled artisan can make and use the invention.

Particularly, child node 54-0 in Figure 2 does not have a pointer to a previous child node.

Furthermore, child node 54-N in Figure 2 does not have a pointer to a next child node.

Claim 1 recites "the parent node comprises a first pointer to a child node that was last

queried." The specification does not include a clear and concise description of the manner and

process of querying the data structure and subsequently providing a pointer from a parent node to

a child node that was queried. Furthermore, the specification does not explain how pointers are

deleted such that a pointer to a last queried child node is obtained.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 1 recites "a second pointer to a next child in the order and a third pointer to a

previous child in the order." The metes and bounds of the invention cannot be determined

because it is unclear how applicant defines "order." Particularly, this is difficult to ascertain

when the claimed invention concerns physical memory locations.

Claim 2 is rejected at least for being dependent from a rejected base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No

6,185,569 issued to East et al (hereafter East), as best examiner is able to ascertain.

Claims 1, 3, 6, 8, 9 and 13-15:

East discloses:

the parent node [Fig 2, root node 210] comprises a first pointer to a child node [Fig 2, child

nodes 211-213, col 2, lines 25-30, left pointer 220] that was last queried; each child node

comprises a second pointer to a next child node in the order [real-time record of the node label,

col 4, lines 32-40]; and a third pointer to a previous child node in the order [Fig 2, doubly-linked

pointers, 250-255, col 2, lines 45-50], a second pointer to another one of the children nodes [Fig

2, right node 230]

Claims 2, 4 and 7:

East discloses wherein the parent node further comprises a fourth pointer to a first child

node in the order and a fifth pointer to a last child node in the order [Fig 2]

Claim 5:

East discloses wherein the first pointer points to a first child node in the order and the

second pointer points to a last child node in the order [Fig 2]

6. A method for generating a data structure comprising a parent node and a plurality of children

nodes of the parent node, the method comprising: creating the parent node with: a first pointer to

one of the children nodes; and a second pointer to another one of the children nodes; creating

each child node with: a third pointer to a next child node in the order; and a fourth pointer to a

previous child node in the order.

Claim 10:

East discloses wherein the first pointer points to a first child node in the order [Fig 2]

Claim 11:

East discloses wherein the first pointer points to a last child node in the order [Fig 2].

Claim 12:

East discloses wherein the second pointer points to a next child node in the order [Fig 2].

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

4/24/2006